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EXAMINER
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PHINNEY, JASON R

APPROVED	EXPIRATION DATE
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DATE MAILED: 10/30/00

Please find below and/or attached an Office communication concerning this application or proceeding

## Office Action Summary

Application No.

09/885,009

Examiner

Jason Phinney

Applicant(s)

NAKAMURA ET AL

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☒ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO 892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO 946)
- 3) ☐ Information Disclosure Statement(s) (PTO 1449; Paper No(s): 6)
- 4) ☐ Interview Summary (PTO 413; Paper No(s):)
- 5) ☐ Notice of Informal Patent Application (PTO 152)
- 6) ☐ Other

## DETAILED ACTION

### *Examiner's Notes*

1. The Examiner notes that the last line of the Abstract has the following typographical error, "raytube" should be corrected to read "ray tube."

### *Priority*

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a), (c), and (d), which papers have been placed of record in the file. In order to receive the benefit of foreign priority a certified translation of the foreign documents is required in accordance with 35 U.S.C. 119(b) paragraph 3.

### *Claim Rejections - 35 USC § 112*

3. Claim 7, 14, and 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). The term "convex surface" in claims 7, 14, and 21 is used by the claim to mean "a flat surface," while the accepted meaning is "curved or rounded like the exterior of a sphere."

### *Claim Rejections - 35 USC § 102*

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 2,735,032 to Bradley.

Bradley discloses an electron gun comprised of a cathode that has an electron emission surface (Figure 4, #101) and a first grid (#106) that has a beam hole (#104), wherein the electron emission surface and the beam hole are arranged opposite to each other and the area opposite the beam hole within the electron emission surface is in closest proximity to the first grid (See Figure 4).

7. Claims 2-5 and 7 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 2,735,032 to Bradley.

Bradley discloses all of the limitations of Claim 1 as explained above.

Regarding Claim 2, Bradley further discloses that the electron emission surface should form a convex surface (Figure 4, #'s 101 and 108) on the first grid.

Regarding Claim 3, a print process is a method of manufacture, since this claim is directed to the structure of the convex surface the method of manufacture is not germane to the issue of patentability. Bradley discloses the convex surface (Figure 4, #'s 101 and 108).

Regarding Claim 4, Bradley further discloses that the convex surface should be a curved surface (Figure 4, #'s 101 and 108).

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Regarding Claim 5, Bradley further discloses that the convex surface should be a curved surface with different curvature depending on the direction (see Figure 4 and Column 5, Lines 37-40)

Regarding Claim 7, Bradley further discloses that the convex surface should have a flat surface (See Figure 4, #101 and Column 5, Lines 21-22)

8. Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 2,758,234 to Hensel

Regarding Claim 1, Hensel discloses an electron gun comprised of a cathode that has an electron emission surface (Figure 1, #4) and a first grid (#6) that has a beam hole (#8), wherein the electron emission surface and the beam hole are arranged opposite to each other and the area opposite the beam hole within the electron emission surface is in closest proximity to the first grid (See Figure 1)

Regarding Claim 2, Hensel further discloses that the electron emission surface should form a convex surface (Figure 1, #4) on the first grid

Regarding Claim 6, Hensel further discloses that the convex surface should be a paraboloid (Figure 1, #4)

9. Claim 8 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 2,735,032 to Bradley

Bradley discloses a cathode ray tube having an electron gun with a cathode that has an electron emission surface (Figure 4, #101) and a first grid (#106) that has a beam hole (#104).

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wherein the electron emission surface and the beam hole are arranged opposite to each other and the area opposite the beam hole within the electron emission surface is in closest proximity to the first grid (See Figure 4)

10      Claims 9-12 and 14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 2,735,032 to Bradley

Bradley discloses all of the limitations of Claim 8 as explained above

Regarding Claim 9, Bradley further discloses that the electron emission surface should form a convex surface (Figure 4, #'s 101 and 108) on the first grid

Regarding Claim 10, a print process is a method of manufacture, since this claim is directed to the structure of the convex surface the method of manufacture is not germane to the issue of patentability. Bradley discloses the convex surface (Figure 4, #'s 101 and 108)

Regarding Claim 11, Bradley further discloses that the convex surface should be a curved surface (Figure 4, #'s 101 and 108)

Regarding Claim 12, Bradley further discloses that the convex surface should be a curved surface with different curvature depending on the direction (see Figure 4 and Column 5, Lines 37-40)

Regarding Claim 14, Bradley further discloses that the convex surface should have a flat surface (See Figure 4, #101 and Column 5, Lines 21-22)

11      Claims 8, 9 and 13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 2,758,234 to Hensel

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Regarding Claim 8, Hensel discloses a cathode ray tube equipped with an electron gun comprised of a cathode that has an electron emission surface (Figure 1, #4) and a first grid (#6) that has a beam hole (#8), wherein the electron emission surface and the beam hole are arranged opposite to each other and the area opposite the beam hole within the electron emission surface is in closest proximity to the first grid (See Figure 1)

Regarding Claim 9, Hensel further discloses that the electron emission surface should form a convex surface (Figure 1, #4) on the first grid.

Regarding Claim 13, Hensel further discloses that the convex surface should be a paraboloid (Figure 1, #4)

12. Claim 15 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 2,735,032 to Bradley.

Bradley discloses an image display device equipped with a cathode ray tube with an electron gun comprised of a cathode that has an electron emission surface (Figure 4, #101) and a first grid (#106) that has a beam hole (#104), wherein the electron emission surface and the beam hole are arranged opposite to each other and the area opposite the beam hole within the electron emission surface is in closest proximity to the first grid (See Figure 4)

13. Claims 16-19 and 21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 2,735,032 to Bradley.

Bradley discloses all of the limitations of Claim 15 as explained above.

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Regarding Claim 16, Bradley further discloses that the electron emission surface should form a convex surface (Figure 4, #'s 101 and 108) on the first grid

Regarding Claim 17, a print process is a method of manufacture, since this claim is directed to the structure of the convex surface the method of manufacture is not germane to the issue of patentability. Bradley discloses the convex surface (Figure 4, #'s 101 and 108)

Regarding Claim 18, Bradley further discloses that the convex surface should be a curved surface (Figure 4, #'s 101 and 108).

Regarding Claim 19, Bradley further discloses that the convex surface should be a curved surface with different curvature depending on the direction (see Figure 4 and Column 5, Lines 37-40)

Regarding Claim 21, Bradley further discloses that the convex surface should have a flat surface (See Figure 4, #101 and Column 5, Lines 21-22)

14      Claims 15, 16, and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 2,758,234 to Hensel

Regarding Claim 15, Hensel discloses an image display device with a cathode ray tube equipped with an electron gun comprised of a cathode that has an electron emission surface (Figure 1, #4) and a first grid (#6) that has a beam hole (#8), wherein the electron emission surface and the beam hole are arranged opposite to each other and the area opposite the beam hole within the electron emission surface is in closest proximity to the first grid (See Figure 1)

Regarding Claim 16, Hensel further discloses that the electron emission surface should form a convex surface (Figure 1, #4) on the first grid



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Regarding Claim 20, Hensel further discloses that the convex surface should be a paraboloid (Figure 1, #4)

### *Conclusion*

15 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Phinney whose telephone number is (703) 305-3999. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JP

January 23, 2003



NIMESH MANI PATIL  
SUPERVISORY PATENT EXAMINER  
COMMUNICATIONS SECTION